## NOTES ON SOME INDIAN BIRDS.

By

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(With 6 plates).

IV.—THE MANBHUM DISTRICT.

(Continued from page 424 of Vol. x1).

At the end of 1932, when I married, I had already made up my mind to give up bird photography as I felt it would not be right to continue taxing my health and strength to the extent which the work involves in the plains. In the beginning of the following February, however, I was unexpectedly posted to Dhanbad, in the Manbhum District. Here, the graceful slopes of Parasnath, the highest hill in Bihar, with the beautiful forest country round the Topchanchi reservoir at its feet, held out such promises of a rich and varied bird life, that my intentions were quickly forgotten, and I soon found myself keener than ever in the pursuit of my hobby. As a result I can now claim that never before, nor since, have I been so successful with the camera as I was during the three years I was stationed in this district. Let me say at once that during this period I added the photographs of sixty-seven new birds to my collection, a fact which, perhaps, justifies an attempt to describe my camera experiences here, or rather in that part of the district which forms the Dhanbad sub-division.

It is not only on account of its wonderful bird life that the Manbhum district will always remain green in my memory; it was here too that my wife and I were shown such kindness and received such hospitality on all sides from the mining community as we feel cannot exist elsewhere in India. But this is not all; it was in this district also that I first made the acquaintance of Sakroo Mahato. Aged about thirty, on the small side, but well built and wiry to a degree, he was intelligent above his station and was recommended to me by a friend who had found him to be a big game shikari possessing considerable knowledge of bird and insect life as well. Sakroo's boyhood, as I came to know later, was spent looking after cattle and goats, and in those early years he had mastered the art of snaring birds at their nests and learnt not only to distinguish the calls and notes of the different species to be found near his home, but also to imitate them. I have told elsewhere of how, when he first came into my service, Sakroo performed the almost incredible feat of finding twelve Nightjars' nests in one day. Nevertheless, in spite of his knowledge of birds and their nests, Sakroo's ignorance with regard to some of the resident species was amazing. For instance, although

he knew the Rock Horned Owl and could imitate its call to perfection, he had no idea of where to look for its eggs, nor did he know that Crested Swifts were to be found near his home, and he had failed to connect the Pitta with its nest. I could continue quoting such instances but I prefer to remember Sakroo for his virtues, one of which was his aptitude to learn. This, and the other gifts with which he had been blessed by Nature, coupled with the fact that he was working on his own terrain, which he knew as well as the palm of his hand, made me soon realise that in Sakroo I had a *shikari* without peer.

Having praised Sakroo according to his deserts, I am reminded of another shikari (Guffara, of Shalabug, near the Anchar Lake), who was in my employ during 1924 and 1931. When the time came for me to return to duty at the end of my first visit to Kashmir, Guffara wanted a chitty to enable him to secure employment in the future, and, sui more, produced a number of letters given by previous employers, to guide me as to what I was expected to say of him. These were kept carefully in the cover of an old novel given him by a 'Captan Sahib' who must have possessed a delightful sense of humour as the title of the novel was All Men are Liars. But it is high time I returned to my muttons and said something concerning the district.

The Manbhum district is frequently referred to in the New Fauna and elsewhere as being in Bengal whereas in fact it forms the eastern part of the Chota Nagpur division in Bihar and lies between 22° 43′ and 24° 4′ North Latitude and 85° 49′ and 86° 54′ East Latitude. It contains an area of 4,147 square miles and is bounded on the north by the districts of Hazaribagh and the Sonthal Parganas; on the east by Burdwan, Bankura and Midnapore—all part of Bengal; on the south by Singhbhum, and on the west by Ranchi and Hazaribagh. Purulia is the administrative head-quarters, but the district is divided into two parts, Dhanbad being the head-quarters of the sub-division with an area of 803 square miles.

The country generally is flat, with a gradual fall in an easterly direction. On the north-west is a range of hills, some of considerable height, with the south-eastern slopes of Parasnath (4,480 feet) just inside the district. With the exception of a fair amount of rice cultivation there are no agricultural activities, the majority of inhabitants being occupied in mining coal, in the output of which mineral the Jharia field, situated in the district, is far and away the largest in India.

Except along the Grand Trunk road, and in the vicinity of the hills in the north-west of the district, trees are comparatively few in number, and the only jungle that exists is also to be found on these same hills. The commonest tree, and one which is plentiful, is the Flame of the Forest or palas. Others frequently met with are the mango, pipal, mhowa, simal and jamun, and on the hill sides, bamboo.

All the rivers have an easterly or south-easterly course, and as is usual with hill-fed streams, their beds are almost entirely

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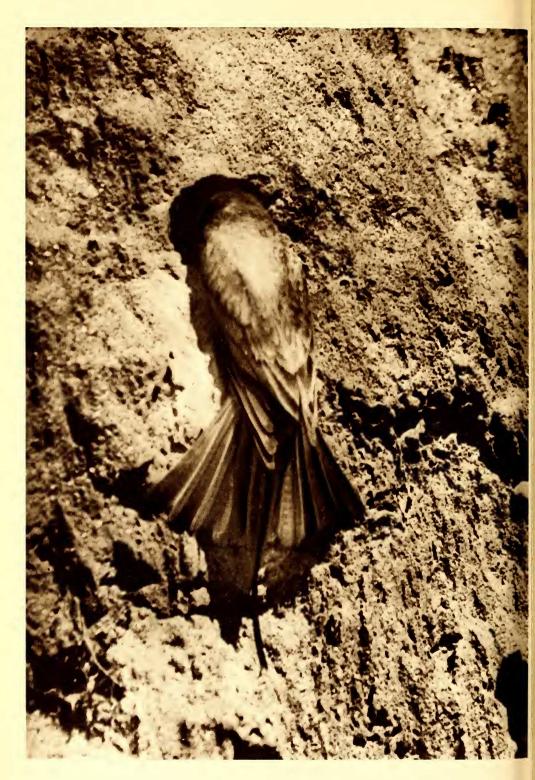
dry during the greater part of the cold season, and throughout the hot weather. They are not navigable and are subject to sudden and violent freshets which are usually of short duration. The principal rivers are the Barakar, which marks the whole of the northern boundary, and the Damodar, which, roughly speaking, divides the district into two parts, and which, with the Barakar, also divides the district from Burdwan.

Several tanks overgrown with weeds exist, but with the exception of the Jharia Water Board's reservoir at Topchanchi, there is no water of any expanse; consequently any species of duck is a rara avis, though snipe are fairly plentiful in the paddy fields during the winter months. Cattle and Little Egrets abound, while most ponds with any vegetation round their edges are tenanted by at least one pair of Dabchicks, Moorhens and Bronzewinged Jacanas. Round the Topchanchi reservoir an occasional Grey and Purple Heron, and more rarely a Black Ibis, may be seen, but where they breed I never found out. The Night Heron, Little Cormorant and Whiskered Tern breed locally in colonies, but, speaking generally, the district is not popular with water-fowl or waders.

Considering the limited area suitable to their existence, game birds, if not common, are nevertheless not poorly represented. Red Jungle-fowl, Painted Spur-fowl and Peafowl occur in small numbers, but only in the vicinity of the well-wooded hills. Because of persecution both by the gun-license holder and the Sonthal, all three species are intensely shy and difficult to approach and seldom come out into the open except to drink, towards dusk. In this connection I ought to mention that the colliery manager is a very keen shikari, and many spend all Sunday in quest of what they may obtain, frequently motoring out fifty or more miles pour la chasse. The Sonthal is an even mightier hunter, and being a deadly shot with bow and arrow, and carrying these at all times, whether in the field or jungle, is greatly responsible for the small number of game birds found. In suitable country, Grey Partridge are to be seen, and more frequently heard, but the Black Partridge I came across only occasionally, and then always near the Jamuni river. The Jungle Bush-Quail occurs locally but the Common Indian Bustard-Quail is fairly numerous in cultivation and scrub. The Common Sand Grouse and Painted Partridge I never saw though I have shot both (each once only) in the neighbouring district of Hazaribagh, fifteen miles distant from Parasnath. The Stone-Plover is somewhat scarce, a remark which also applies to the Yellow-wattled Lapwing, but the Green Pigeon plentiful. I never saw the Emerald Dove, and the Purple Wood-Pigeon but once.

The scrub jungle harbours a wealth of bird-life—Common and Franklin's Nightjars, Ioras, Thick-billed and Tickell's Flower-peckers, Yellow-eyed and Jungle Babblers, White-eyes, Little Minivets and Common Wood-Shrikes, to mention only the most common species. Wherever palas and mhowa trees occur, and even about habitations, Brahminy Mynahs, Bay-backed Shrikes, Large Cuckoo-Shrikes and Jerdon's Chloropsis are common, while





A GREEN BEE EATER AT THE ENTRANCE OF ITS NEST.

The tail is spread fanwise for support.

a simal tree, as often as not, provides a nesting site for a pair of Indian Orioles or Large Parrakeets. Here too are found the Sirkeer and a number of other species of cuckoo. It will not be out of place to remark now that Cuculus c. canorus arrives in this and the neighbouring districts of Chota Nagpur about the middle of April and is resident for nearly two months; that the notes—wuck-wuck-wuckoo, or wuckoo-wuckoo—of the Indian Cuckoo may also be heard throughout April and May. In spite of the most diligent searching, neither I nor my shikuris came across an egg which could possibly be attributed to either of these species, nor were they ever noted on the return passage. Can it be that the return

migration is made by a different route?

Near the edge of heavier jungle, but outside it, the Green Barbet is found, and inside, the Common Pitta, Orange-headed Ground-Thrush, Spotted Babbler and Shama. Such jungle occurs on all the medium sized hills rising to 2,000 feet. Nalas, festooned with various kinds of creepers, are here frequent and provide ideal nesting-sites for three species of Flycatchers, as also an occasional Large Green-billed Malkoha. In the forest-clearings, and the bamboo jungle, I always expected to find the Large Rackettailed Drongo but never once saw the bird. I am confident this species does not occur on Parasnath or the neighbouring hills, or in the Tundi range, as Sakroo did not know it when I showed him Dissemurus p. grandis in the forest at the foot of Jumra pahar in the Hazaribagh district, not fifty miles distant. Elsewhere throughout the Chota Nagpur division the species is common. But once again I seem to have missed my cue as I did not set out to tell of the different birds which one might expect to see in the Manbhum district but to describe some of my camera experiences there.

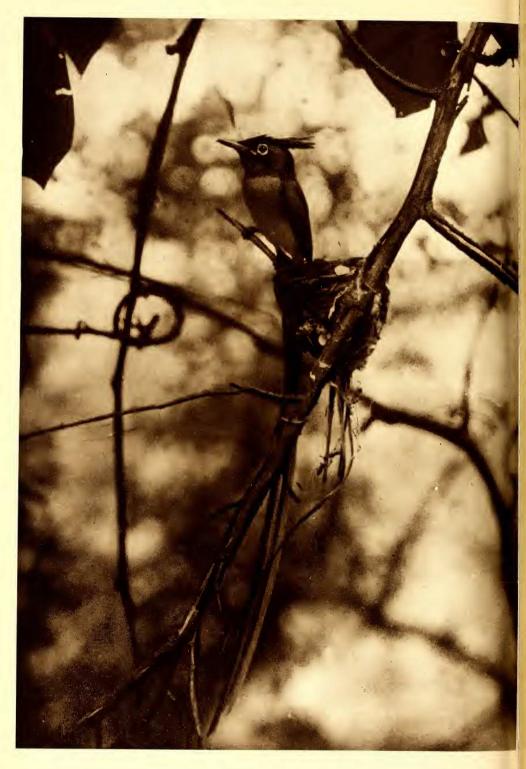
Uninteresting though it may sound, the first bird whose photograph I added to my collection in this district was the Green Bee-Eater. Numbers dig their tunnels in the low perpendicular banks beside the Grand Trunk Road down to which the paddy fields often run. Other favourite nesting sites are in the sandy banks of the valley streams, now dry in April and May. Digging operations were already considerably advanced with the pair I had under observation, sufficiently so for the birds to be right out of sight while at work. Even so it was noticeable that although only one bird at a time usually devoted itself to tunnelling, it sometimes happened that male and female were inside the passage together, when it seemed that while the one was engaged in excavating, the other employed itself in throwing out the loose earth. After working for a few minutes, always they left the tunnel together. Later, on 30 April, when the male and female Bee-Eaters were repeatedly observed flying in and out of their nest-hole with food—usually grasshoppers—in their bills, arrangements were made to photograph them at home. During the three succeeding evenings I discovered that only one bird remained overnight in the nesting tunnel, the other using the leafy twig of a mango tree hard by on which to sleep.

So gradually was the hide introduced that the Green Bee-Eaters paid it no attention. Successful photography was, however, an almost impossible matter owing to the way in which the birds flew straight into the tunnel without first alighting at its mouth. The result was that the exposures made the first morning merely showed a blur of movement. Accordingly, the next session saw me resort to strategy. If I hissed as the Bee-Eater was on the point of entering the tunnel, perhaps the bird would alight for a second at its mouth and give me the opportunity I wanted. The plan worked better than I dared hope, and during the next fifteen minutes I obtained two successful pictures, one a profile and the other a back view, with the head partly in the tunnel. The fan-like spread of the tail will be noted, and the manner in which the long median feathers are pressed against the bank face.

Writing of the Green Bee-Eater calls to mind the curious and tragic accidents which sometimes befall birds. While out for a walk one morning I noticed a Green Bee-Eater sally forth from its perch in pursuit of some insect. The chase led the bird round a babool tree and then in my direction. The next moment a grasshopper settled just where I was going to put my foot. A split-second later, the Bee-Eater, hot in pursuit, alighted at the same spot, and although my foot came down on it ever so lightly indeed the step was never completed and the grasshopper uninjured —the little bird was killed. I suppose it was so bent on obtaining a meal-perhaps to feed its young-that it failed to realise my presence. As my shikari, who saw everything, remarked:—'Sahib, you might walk a crore of kos and such an accident not occur again.

The Blue-tailed Bee-Eater occurs very rarely in the district— I only found its nest once, in the sandy bank of a stream—and the only other representative of the genus which I came across in these parts was the rare and handsome Blue-bearded Bee-Eater. Essentially a forest bird, this species was only met with round the Topchanchi reservoir. I am confident it breeds in the jungle here as it was heard calling every spring and up to the end of August, although it was not until 1935 that the bird was definitely seen and recognised. I was at the time photographing a Dabchick near her nest on a small piece of water between the road encircling the reservoir and the main jungle leading up to Parasnath when the unidentified call reached my ears, and looking through the hide spotted the author perched high up in a simal tree. From time to time it flew to the trunk of a dead tree where it appeared to find food in plenty. The method of calling, and the call itself, are very correctly described in the New Fauna<sup>1</sup>. The call is a deep hoarse double croak ending in a chuckle-kok-kok-keeaou-kekkek-kek. At the outset it is uttered with the head held low and the long blue feathers of the throat puffed out; with each succeeding





A MALE PARADISE FLYCATCHER AT NEST. It has not yet acquired the white plumage of the fully adult male.

note the head is raised higher and higher, until finally the bird has

the appearance of a crowing cock.

sub-species.

It is a waste of time looking for nests of the different species of Flycatchers that breed here until just before the monsoon breaks, but from about the middle of June all four—the Indian Paradise, the White-spotted Fantail, the Black-naped and Tickell's Blue Flycatchers—are busy with household duties. The second named, in these hills, as apparently also throughout the hilly regions of the Central Provinces, replaces the White-browed Fantail so commonly found in the plains of northern India. In Manbhum this last is a decidedly rare bird as I only came across it once. The Paradise and the White-spotted Fantail occur in considerable numbers, the latter frequently building its home but three or four feet from the ground, considerably lower than does the White-browed Fantail elsewhere. The Black-naped Flycatcher, a blue bird with black forehead, black top-not, and a crescent marking of similar colour on its breast, although by no means so common as the other species, cannot but be classed as occurring frequently. Tickell's Blue Flycatcher, with pinky-orange coloured breast, is only less numerous than the Paradise and White-spotted Fantail Flycatchers, but differs from the other three species in its choice of nesting quarters. The compact little nest, with skeleton leaves frequently serving as basis, is built either in a hole of a bank or more commonly of a stump of a tree or bush. All four species are a joy to watch and their quite pleasing songs may be heard by every intruder of their haunts, although, with the exception of the White-spotted Fantail. all are somewhat shy birds.

With the Paradise Flycatcher nesting so generally it was only natural that I should devote particular attention to the breeding plumage of the male bird. The male breeds even in the chestnut phase though mating must be most unusual until after his second moult when his lovely white plumage is acquired. Only once did I come across a male, with a nest, wearing the same plumage as the female. My observations showed too that although the male Paradise Flycatcher shares in the tasks of incubating the eggs and feeding the young he apparently takes no part in constructing the nest. This was also found to be the case with the Himalayan

Blue is a most unsatisfactory colour so far as photography is concerned, and owing to the amount of blue in the plumage of the Black-naped and Tickell's Blue Flycatchers, one obtains from a print an entirely erroneous idea of the prevailing hue of these two species. Fortunately black, as a rule, is correctly rendered, so that the black markings of the Black-naped Flycatcher show up clearly in photographs. Otherwise there is nothing of particular interest to record with regard to the photography of the different Flycatchers. The fastest plates should be used as their nests are generally found in jungle where, more often than not, lighting conditions are poor; in the case of the Spotted Fantail, the employment of a large stop is usually necessary as the bird is never still for the fraction of a second.

Writing of the Black-naped Flycatcher, I am reminded of an incident which occurred when photographing this species at the nest. The nest was built on a small creeper growing over a nala about eight feet wide, and, after I had finished camera operations, I retired a little distance to observe more clearly the behaviour of the birds when feeding their young. While seated in the nala, a heavy thunder storm came on and for a space of twenty minutes or more it simply poured. Presently I heard an extraordinary sort of roar, the noise becoming louder and approaching nearer every second. I could not make out what it was. It could not have been a train as a hill nearly 2,000 feet high, and three miles of country, intervened between myself and the railway line, and it certainly was not an earthquake nor any animal with which I was familiar. However, my anxiety was soon rested when a freshet bore down on us like a baby tank. Where a few minutes before the nala was as dry as a bone, water three feet deep now hurled itself headlong in its haste to join some larger stream below. Pondering over the phenomenon I thought how terrifying an experience it must be to be caught by a large river in spate, or a tidal bore.

Just as when first we went to school the 'Bloods' in the xv were (and still are) in our imagination the finest 'Rugger' players we ever saw, so too perusal of the three volumes of Hume's Nests and Eggs even to this day conjures up visions of a wonderful team of ornithologists: Blewitt, Aitken, Brooks (also of the East Indian Railway), Scrope Doig and Major Cock, to mention only a few of Hume's great correspondents. Sandwiched in amongst these giants of a past era, working quietly and therefore liable to escape notice, but all the time using his weight, like a good forward in the 'scrum', we find occasional reference to a Captain Beavan and his discoveries in Manbhum. Was he in the Ramgarh Battalion stationed at Hazaribagh, and did he spend the hot weather on the top of Parasnath? Or was he a 'Soldier-Political' administrating the recently subdued district of the Sonthal Parganas? Who or what he was, I have never been able to learn. Memories in the East are but short-lived and I would commend to the Editors of the Journal the necessity for publishing, before the facts are lost in oblivion, a Bibliography or 'Who's Who' of Indian Ornithologists.

This dip into the past is occasioned by a glance through the notes detailing my finding and photographing the nests of the Tickell's and Thick-billed Flowerpeckers and Captain Beavan's records on their nidification in Nests and Eggs. With regard to the former Hume remarks:—'The late Captain Beavan, so far as I know, was the first person certainly to take the nest of Tickell's Flowerpecker', and from the description of the nest of the Thick-billed Flowerpecker by Captain Beavan one obtains the impression that to him falls the honour of first finding the nest of this species also.' Whether this was the case or not, both species still occur commonly in the Manbhum district although their nests are amongst

<sup>1</sup> Vol. ii, pp. 274, 277 and 278.

the hardest I know of to discover. Inspite of the statement made by Stuart Baker in the New Fauna where, writing of the nest of Tickell's Flowerpecker, he remarks:—'In appearance and construction it is exactly like that of the other Flowerpeckers', this is not the case; at all events it is unlike the Thick-billed Flowerpecker's, the only other Flowerpecker with whose nesting I have acquaintance. The nest of Tickell's Flowerpecker is suspended from a twig and is not unlike that of the Purple Sunbird, minus however the 'porch' over the entrance, and without the 'trailer' so common to the nest of Leptocoma a. asiatica, but that of the Thick-billed Flowerpecker is a bag-shaped structure, with the roof slung along the under-side of a twig. The materials employed in the construction of the two nests are also entirely different. Fine grass stems and a cotton-like down go largely to the making of Tickell's Flowerpecker's nest, the exterior being covered with cobwebs, cocoons, small species of bark and shavings of rotten wood, whereas the nest of the Thick-billed Flowerpecker is made mainly from the down of the palas flower, with spiders egg-casings worked in between, so that the whole has the appearance of being woven into one piece of felt, reddish-brown in colour.

Most nests will be found in March or early April; numbers are destroyed by the gales prevalent at this time of year. In my experience the Thick-billed Flowerpecker lays but two eggs, of a pinky-white ground colour, with reddish-brown spots, while Tickell's Flowerpecker lays three more usually than two eggs—white and unspotted. Both select the same situations for nesting purposes, generally a twig of a mango or seesum tree, the nest being built at any height from ten to twenty-five or more feet from the ground. I too can bear testimony to what has been stated by several observers, that the nest of the Thick-billed Flowerpecker is often situated in the midst of the leaf-nests of that vicious creature, the large red ant; in fact I would go further and say that

this is almost invariably the case.

The nest at which I photographed Tickell's Flowerpecker contained three young ones almost ready to fly. This was on 22 April and the little home was clearly feeling the strain of the extra weight, added to which a strong westerly wind rocked it as it willed. The call of the parents as we erected the hide was an excellent imitation of a cricket's reel, and the alarm note a sharp, piercing utic, utic. Neither bird showed any fear and fed the young every two or three minutes. Nevertheless photographic work was almost out of the question owing to a gale which sprang up and constantly put the nest out of focus, and the very quick movements of the birds themselves. The food given to the young was a small pill, pinkish-red in colour, probably the berry of Loranthus longiflorus, the mistletoe-like plant so generally parasitic on sal and mhowa trees in these parts.

Every third time they were fed one of the young always turned round and poked its vent out of the entrance, the parent either

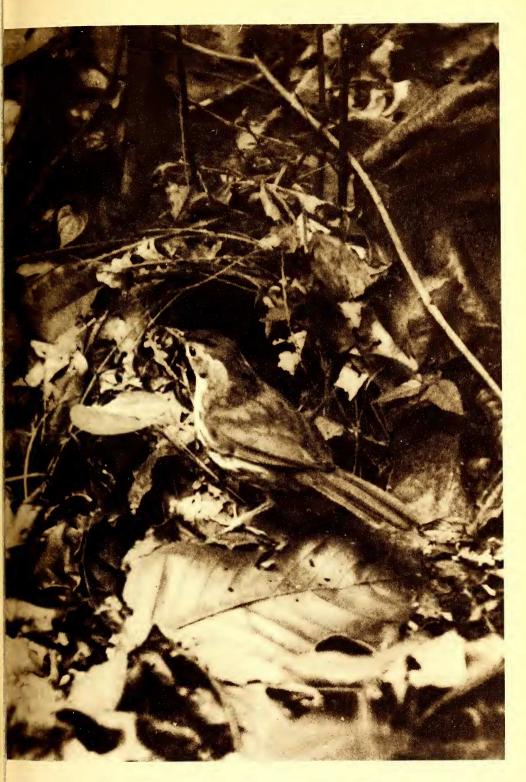
alighting on the nest to remove the excreta, or hovering with quick-beating wings and flying off with the sack as it was expelled, sometimes even helping in its expulsion, helping in the sense that

the sack was seized before it had finally left the vent.

I never succeeded in finding a nest of the Quaker Babbler but twice came across the bird on the lower slopes of Parasnath in April. Other babblers occur as residents, and, as soon as the rains break, many nests of the Spotted Babbler are to be found just inside the jungle surrounding the Jharia Water Board's reservoir. They are always built on gently-sloping ground which, at this season, is covered with a deep carpet of leaves. The nest itself is a globular ball of dead leaves, about the size of a fairly large melon, and usually is scantily lined with the fine stems of the maidenhair fern. Three eggs form the full clutch. The bird is shy and a great skulker but has a most attractive call, a clear whistle, wheat-ee-er, and a loud note, chunk-chunk-chunk, which give away its where-Going down hill it is a simple matter to tread on the nest but if one works the ground in an upward direction the nest is easily seen owing to the bulge it makes in the general contour, and because the entrance always looks down hill. I am afraid many eggs of this species are eaten by snakes which abound in these parts. Here the Spotted Babbler breeds most commonly at an elevation of only 950 feet. It is not a difficult bird to photograph, the only interesting feature about the one I portrayed being that it was minus the outside toe of the left foot.

Discussion of the Spotted Babbler reminds me of the difficulty Sakroo and I always had in talking of the different species: he had no names for most birds and it was useless telling him the We therefore invented names. English names. The Spotted Babbler came to be known as patti chiriya, the 'Leaf bird', in allusion to its nest. Similarly the Orange-headed Ground-Thrush was referred to as chupki, the 'Silent one', the Sirkeer as neora chiriya, from its resemblance to a mongoose when running along the ground, and so on through the gamut; which is a better method of each understanding the other than the one my devoted first shikari, Pokhi, tried to adopt. He was with me in Kashmir in 1931 when we met Lala Sheikh, Mr. B. B. Osmaston's old shikari. Lala was well acquainted with the English names of birds and aired his knowledge at every turn. This was too much for Pokhi who determined that in future he would always speak of a bird by its English name. Alas! the first one he tried his hand on, or rather his tongue, was Hume's Willow-Warbler. I explained who Hume was and he repeated the name a dozen times till he thought he had it pat-but his rendering of it, 'Hume sahib que Billow-Bobbler', brought a smile to my face and Pokhi thereafter decided our made-up names were good enough for him.

The Rufous-bellied Babbler is quite as common a breeding species in these parts as the Spotted Babbler, but to my mind the former's nest is far more difficult to find; in its breeding habits too the species is interesting from more than one point of view. To begin with, the nests are of two different types,



THE SPOTTED BABBLER.

The nest is a globular ball of dead leaves.



either an oval ball of dead bamboo leaves lying on its side, with the entrance at the end, or more commonly a ball of coarse grass with the entrance about half way up the side. Whatever the material employed, the nest is usually situated only a few inches from the ground, although I once saw one about four feet up in a bush, and another quite six feet—both unusually high. The nest may be built either among grass and weeds surrounding a small bush on the outskirts of jungle, or a little way in the jungle, but all those I have seen had this common feature, they were always built alongside a path of sorts. Many have no lining but others a slight one of what appears to be hairs but which close inspection reveals to be fine maidenhair fern stems. Then again, the breeding season is prolonged and commences a fortnight or more before that of the Spotted Babbler, and continues till the middle of September, as I see from my notes that both in 1934 and the following year I examined nests containing young on the 12th of that month. Four is the largest number of eggs I have seen in a nest. These have a white ground with the slightest shade of

red, with reddish-brown spots and blotches.

The Rufous-bellied Babbler, like the Spotted Babbler, is a great skulker, but if one remains motionless in its haunts, the bird may be studied at ease. Once I observed a pair, apparently males, fighting. They were seated on a horizontal twig, facing each other. One put its head down, utterred a challenging note, threw its head up and advanced a step towards the other. His opponent went through exactly the same performance, and both repeated it until finally they met, flying at each other—a confused mass of feathers and eventually separated. This was on 30 June and possibly the birds were disputing territory. On another occasion I watched a party of quite twelve Rufous-bellied Babblers rummaging under a mass of dead leaves. At times none of them were to be seen, though the leaves showed movement. Had I first come across them feeding in this manner, invisible, it is quite probable I would have imagined the movements of the leaves were caused by a snake and have hit out with my khud stick. The party spirit is most noticeable in this small species which is well termed Rufousbellied. The male (who is the more brightly coloured) possesses quite a pleasant song of which I wrote in the following terms while listening to it—'The first half very like a red-winged bushlark's, and the latter part resembling the canary-like notes of the sunbird, the two running into each other without a break'.

I never came across the Large Grey Babbler in Manbhum.

I never came across the Large Grey Babbler in Manbhum. Other babblers which occur in the district are the Jungle, the Common, and Yellow-eyed Babbler, the first and last named being found in considerable numbers but the Common Babbler less generally. Of the Yellow-eyed Babbler it can truthfully be said that there is nothing about the bird which does not at once please; the ruddy-chestnut upper plumage, long tail and chaste lower parts, the blood-orange eyelids, its acrobatic ways as it climbs up or down some reed stem, the sweet song, beautiful nest and lovely eggs, all combine to make the Yellow-eyed Babbler a most attractive

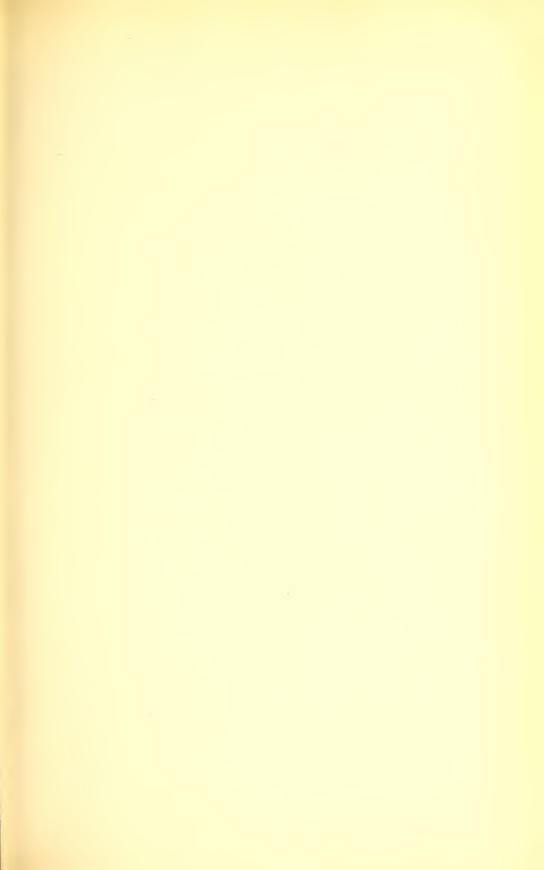
bird to meet. A week or so after the monsoon breaks, as soon as the scrub jungle affords better concealment, one can confidently look for its nest and continue to do so till August and even early September. Five eggs are usually laid, pinky-white in ground colour, thickly marked all over with chestnut-red; more rarely they are sparingly but boldly marked with the same colouring.

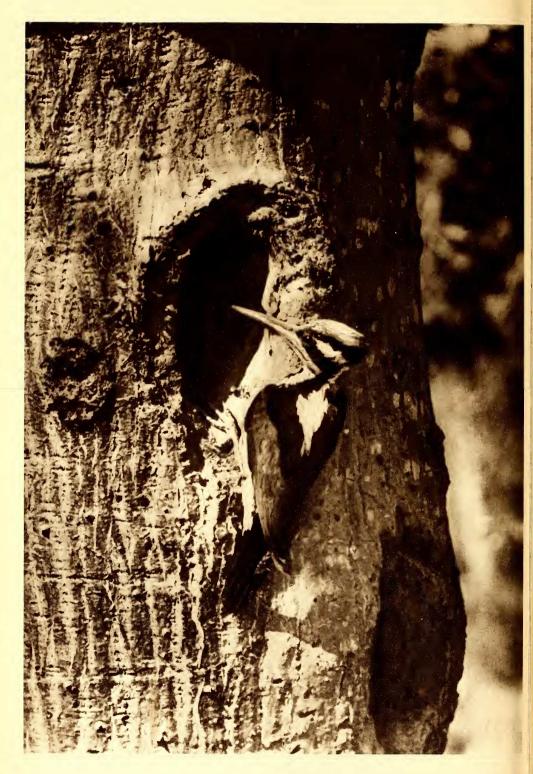
The Green and Blossom-headed Parrakeets commence nesting operations early in the year and their eggs may be found regularly from about the beginning of February till the end of March or even later. The Green Parrakeet usually makes use of a natural hole in a tree for nesting purposes, or one previously occupied by a woodpecker or barbet. It rarely cuts one out itself, whereas the Blossom-headed species almost invariably cuts out its own hole. The former favours holes in mango trees; the latter is partial to the mhowa, its nest hole generally being cut in the large 'knots' about the size of a man's head, which are a feature of this tree. The Large Indian Parrakeet starts to nest even earlier—or is it later?—and its eggs may be found fairly regularly throughout December. The earliest record I have of this species is 20 November when I examined a nest containing three eggs. This is the usual number in a clutch although I have occasionally found four. The Green Parrakeet normally lays four, and the Blossom-headed species commonly five eggs. The Large Alexandrine Parrakeet differs from the others in that it almost invariably nests in natural holes of the red silk cotton tree, and always at great heights from the ground. The word nest is really a misnomer when applied to the Psittaci as the eggs of all of the genus are laid on the bare floor of the hole made or selected, no attempt being made at furnishing. In these parts I never came across a nest in a hole of a building or wall, though elsewhere in northern India such sites are regularly used by Psittacula krameri manillensis.

All three species have fallen victims to my camera but there is little in the behaviour of one to distinguish it from the others when at the nest. Both sexes incubate and feed the young, though in the case of the Large Indian Parrakeet these tasks devolve more largely on the female. All feed their young by regurgitation, but while P. eupatria nepalensis and P. c. cyanocephala approach the nesting tree quietly and usually at long intervals, the Green Parrakeet seems to feed the young more frequently and often gives notice of its coming. The food given by all three species must I think, usually be the fruit of the wild fig, judging by the visits of the birds to such trees. There can be little doubt that the small berries inside the unripe mhowa flower also form a considerable item on the mènu.

What a gorgeous sight the *mhowa* presents at this season with its fresh green foliage; the deep mauve coloured flowers of the orchid so commonly parasitical on this tree also add greatly to the joy. How over-powering though the smell of the fruit!

The small woodpecker common in the Manbhum district is the Yellow-fronted Pied species, mahrattensis. The Golden-backed





THE BLACK-BACKED WOODPECKER.
Outside its collar-shaped nest hole.

Woodpecker is decidedly scarce, its place being taken by the Blackbacked Woodpecker, a somewhat larger and equally handsome species. This frequents the outer fringes of mixed jungle and is found particularly about the lower slopes of small hills. For a nesting tree the *simal* is a great favourite, and often the same tree is resorted to year after year, a fresh hole only being cut higher up the trunk and a little to the side of the previous one. This is not circular in form as is usual with the *Picidae* but somewhat horse-collar shaped. The species is an early breeder and the egg may be found from about 10 January onwards, or even earlier, as on the 25th of that month in 1934 a nest I examined contained a young one whose wing feathers were already beginning to grow. Altogether six nests came under my inspection and not in one instance did these contain more than a single egg or young one.

The different text books tell us that the Rufous Woodpecker occurs generally in Chota Nagpur. Accordingly I hoped to meet the species in the district and looked forward keenly to studying this very interesting bird at its equally interesting nest, constructed inside the papier-mâché-like blackish-grey nest of a tree ant, with which it seems to live on the most friendly terms. Alas! I never came across either the bird or its nest in Manbhum or elsewhere

in the Chota Nagpur division.

A number of small ravines, heavily forested, mainly with bamboo growth, run down from the hills to the Topchanchi reservoir on all sides except the north-east, and afford sufficient cover for possibly half a dozen pairs of Shamas. I was enthralled when I listened early one morning to the lovely notes of this fine songster. I had never before heard them, and although I felt sure the Shama was the author, my curiosity was not to be satisfied that morning, nor was it until some days later that I actually saw the accomplished artist perform. Now I wanted to find its nest, and, if possible, to photograph the bird at home, though the prospect of doing so seemed hopeless, such a forest and shade-loving species is the Shama. To cut matters short, I wasted two seasons looking in the wrong sort of place for the nest. Whatever the Shama may do elsewhere, in the Manbhum district it builds its nest only in holes of trees or stumps, not more than five or six feet from the ground, and never, I think, amongst the collection of dead leaves found at the foot of every clump of bamboos. The nest is rather an untidy affair, with a basis (sometimes quite substantial) of dead leaves, and has a lining of fine roots. Here the bird does not begin to nest until after the rains have set in, the earliest (and first) note I have of a nest being 25 June when I found one containing five fresh eggs. It is more usual to find nests with eggs at the beginning of July. The breeding season is short and the young have flown by the middle of August at the latest. Five is an unusual clutch and my experience coincides with that stated in Nidification of Birds, that four is the normal number of eggs laid. These are

<sup>&</sup>lt;sup>1</sup> Vol. ii, p. 106.

much the same in size as those of the Magpie-Robin, to which, of course, the Shama is closely related. There is also in the colour and markings of the eggs of the two species a close family resemblance, those of the Shama, however, possessing more of a green than a blue ground. Like the Spotted Babbler and the Orange-headed Ground-Thrush, the Shama nests usually at an elevation of only 950 feet. Higher than 1,000 feet I never found its nest.

There is no difficulty in photographing the Shama at the nest as it is very confiding, but owing to the very poor lighting conditions that invariably exist at the nest, I wasted nearly fifty plates before I obtained a picture that bears reproduction at all. The female is clad in sombre plumage but the male handsomely clothed; nevertheless he is just as difficult to pick up in the jungle as is his mate.

The Iora breeds commonly in the scrub jungle proper, and where scattered palas and sal trees occur, the Little Minivet, Large Cuckoo-Shrike, Jerdon's Chloropsis, the Sirkeer, and Spotted Dove. The Common Pitta occasionally nests in similar country but more usually it breeds in mixed deciduous forest. By making its beautiful nest so generally in low bushes,—often in close proximity to the Yellow-eyed Babbler—the Iora earns the

photographer's everlasting gratitude.

Reading through my notes written when photographing the Iora, I am reminded of a matter not generally realised, how young birds quickly succumb from even a comparatively short exposure to the sun's fierce rays, exactly as they do if deprived of the parent's warmth and protection when it rains heavily. Although both sexes incubate and feed the young most assiduously, I noticed the female Iora only, during the first five days of their lives, brooding her young for about ten minutes every third time she fed them, her wings out-stretched, to shield them from our old friend—and enemy too, in the East—Sol. Clearly she was aware of the sun's danger to the young. I have noticed the same anxiety shown by the Painted Stork, King Crow and a female Chestnut Bittern.

The Little Minivet is most partial to the palas tree for nesting purposes. The nest harmonises closely with its surroundings and looks just like a knot in a branch. It would usually escape detection but for the parents flying to and from a particular tree, obviously to feed the young, or taking material to build their charming little home. What a handsome creature is the male with his beautiful grey upper plumage, flame-coloured rump and breast, his long tail and a wing-patch similarly coloured, and his bluish-grey chin and throat! The female, with her yellow plumage, and generally paler colouring than her consort's, is a 'good-looker' as well. At one nest which I 'worked', the female always flew away with the white sack-like excreta of the young held in her bill; the male, on the other hand, almost invariably ate this while still near the nest.

